IN THE CLAIMS

1. (Original) A method for producing a crystalline turbostratic boron nitride, comprising:

providing a mixture of a substantially amorphous boron nitride and an alkali-borate fluxing agent, and

crystallizing said amorphous boron nitride to said crystalline turbostratic boron nitride in the presence of an effective amount of said alkali-borate fluxing agent in a non-oxidizing atmosphere comprising an atmosphere within a vessel of a closed or quasi-closed state.

2. (Original) The method of claim 1, wherein said crystallizing is carried out by heating said mixture at a temperature of about 1500° C. or below for a time period until said amorphous boron nitride is substantially crystallized to said crystalline turbostratic boron nitride.

3. (Original) The method of claim 1, wherein said crystallizing is carried out at a temperature from 1200° C. to 1400° C.

4. (Original) The method of claim 1, wherein said alkali-borate comprises sodium borate and/or hydrate thereof.

5. (Original) The method of claim 1, wherein said alkali-borate in said mixture ranges from 0.01% to 20% by weight.

6. (Original) The method of claim 1, further comprising:

purifying the crystalline turbostratic boron nitride by washing with an aqueous cleaning liquid to remove impurities after forming the crystalline turbostratic boron nitride.

7. (Previously presented) A crystalline turbostratic boron nitride, wherein said crystalline turbostratic boron nitride has a (001) diffraction peak in an X-ray powder diffraction diagram with Cu Kα X-ray which corresponds to the [002] diffraction peak of hexagonal boron nitride,

said (001) diffraction peak having a dominant peak defined by two straight flank lines, and being located between 20 and 30 degrees of 2θ and rising from a substantially flat portion of said X-ray diffraction diagram; and

said crystalline turbostratic boron nitride exhibits a combined (10) diffraction peak in the X -ray powder diffraction diagram around the site of [100] and [101] diffraction peaks of hexagonal boron nitride,

said combined (10) diffraction peak having a peak at a site which corresponds to the site of [100] diffraction of hexagonal boron nitride and exhibiting substantially no recognizable diffraction peak which corresponds to the [101] diffraction peak of hexagonal boron nitride.

8. (Previously presented) A crystalline turbostratic boron nitride, wherein said crystalline turbostratic boron nitride has a (001) diffraction peak in an X-ray powder diffraction diagram with Cu Kα X-ray which corresponds to the [002] diffraction peak of hexagonal boron nitride,

said (001) diffraction peak having a dominant peak defined by two straight flank lines, and being located between 20 and 30 degrees of 2θ and rising from a substantially flat portion of said X-ray diffraction diagram;

said crystalline turbostratic boron nitride exhibits a combined (10) diffraction peak in the X-ray powder diffraction diagram around the site of [100] and [101] diffraction peaks of hexagonal boron nitride,

said combined (10) diffraction peak having peak at a site which corresponds to the site of [100] diffraction of hexagonal boron nitride and exhibiting substantially no recognizable diffraction peak which corresponds to the [101] diffraction peak of hexagonal boron nitride; and

said turbostratic boron nitride comprises primary particles having a substantially spherical shape.

9. (Previously presented) The crystalline turbostratic boron nitride as defined in claim 7, wherein said combined (10) diffraction peak has a shoulder and a sloped foot portion following the shoulder on a larger angle side of 2θ where the [101] diffraction peak of hexagonal boron nitride appears.

10. (Previously presented) The crystalline turbostratic boron nitride as defined in claim 8, wherein said combined (10) diffraction peak has a shoulder and a sloped foot portion following the shoulder on a larger angle side of 2θ where the [101] diffraction peak of hexagonal boron nitride appears.

11. (Previously presented) The crystalline turbostratic boron nitride as defined in claim 7, wherein said (001) diffraction peak is the (001) diffraction peak shown in Figure 7 of Drawings, and said combined (10) diffraction peak is the (10) diffraction peak shown in Figure 7 of Drawings.

12. (Previously presented) The crystalline turbostratic boron nitride as defined in claim 8, wherein said (001) diffraction peak is the (001) diffraction peak shown in Figure 7 of Drawings, and said combined (10) diffraction peak is the (10) diffraction peak shown in Figure 7 of Drawings.

13. (Previously presented) The crystalline turbostratic boron nitride as defined in claim 7 wherein said crystalline turbostratic boron nitride has a primary particle size of approximately from 0.1 to 0.4 μm.

14. (Previously presented) The crystalline turbostratic boron nitride as defined in claim 8 wherein said primary particles size of approximately from 0.1 to 0.4 μm.

15. (Previously presented) The crystalline turbostratic boron nitride as defined in claim 7, wherein said crystalline turbostratic boron nitride has a primary particle size in the order of 0.2 to 0.3 μm.

16. (Previously presented) The crystalline turbostratic boron nitride as defined in claim 8, wherein said primary particles have a size in the order of 0.2 to 0.3 μm.